

Patent Claims:

1. Method for blacking components, characterized in that the surface is subjected to a heat treatment with simultaneous administration of a carbon-emitting medium inside a processing space (1).
2. Method according to Claim 1, characterized in that the heat treatment takes place at low pressure.
3. Method according to Claim 1 or 2, characterized in that a low pressure from 0.01 mbar to 100 mbar is applied.
4. Method according to Claim 3, characterized in that preferably a low pressure from 0.1 mbar to 15 mbar is applied.
5. Method according to one of Claims 1 to 4, characterized in that the heat treatment is conducted at a temperature from 200° C to 700° C.
6. Method according to Claim 5, characterized in that preferably the heat treatment is conducted at a temperature from 300° C to 570° C.
7. Method according to Claim 5, characterized in that the heat treatment especially preferably takes place at a temperature from 350° C to 475° C.
8. Method according to one of Claims 1 to 7, characterized in that a regulation of the processing time takes place as a function of temperature and/or pressure.
9. Method according to one of Claims 1 to 8, characterized in that the carbon content is regulated inside the processing space as a function of temperature.
10. Method according to one of Claims 1 to 9, characterized in that the carbon-emitting medium is administered in the form of a gas.
11. Method according to one of Claims 1 to 9, characterized in that the carbon-emitting medium is administered in the form of a liquid.
12. Method according to one of Claims 1 to 11, characterized in that hydrocarbons, especially acetylene and/or carbon monoxide are administered as a carbon-emitting medium.

13. Device for implementing the method according to Claims 1 to 12 with a heatable processing space (1) and a device for regulated feeding (5) of the carbon-emitting medium.
14. Device according to Claim 13, characterized in that the processing space (1) is evacuable.
15. Device in accordance with Claim 14, characterized in that a vacuum pump (4) is provided for evacuation.
16. Device in accordance with one of Claims 12 to 15, characterized in that a monitoring device (6) for the carbon content in the atmosphere of the processing space (1) is provided for regulated feeding of the carbon-emitting medium.
17. Device in accordance with one of Claims 12 to 16, characterized in that the processing space (1) is a furnace.
18. Device in accordance with Claim 17, characterized in that the furnace has a liner.
19. Device according to Claim 18, characterized in that the liner is interchangeable.